

Danny Nowlan

NSW 2264  
18th of February 2016  
BSc, BEng (Aero), MEng (Aero) (USyd)

Foreign Affairs, Defence and Trade Committee  
Joint Strike Fighter Inquiry  
Department of the Senate  
PO Box 6100  
Parliament House  
**Canberra ACT 2600**

**RE:THE PLANNED ACQUISITION OF THE F-35 JOINT STRIKE FIGHTER**

Dear Chairman and Committee Members,

Please find enclosed a supplementary addendum to my original submission that was submitted on the 21st of December 2015. This contains citations and references to the content matter that was raised in my first submission.

I commend this to the committee. Also if required I will be happy to testify to assist the committee in its inquiries.

Best Regards

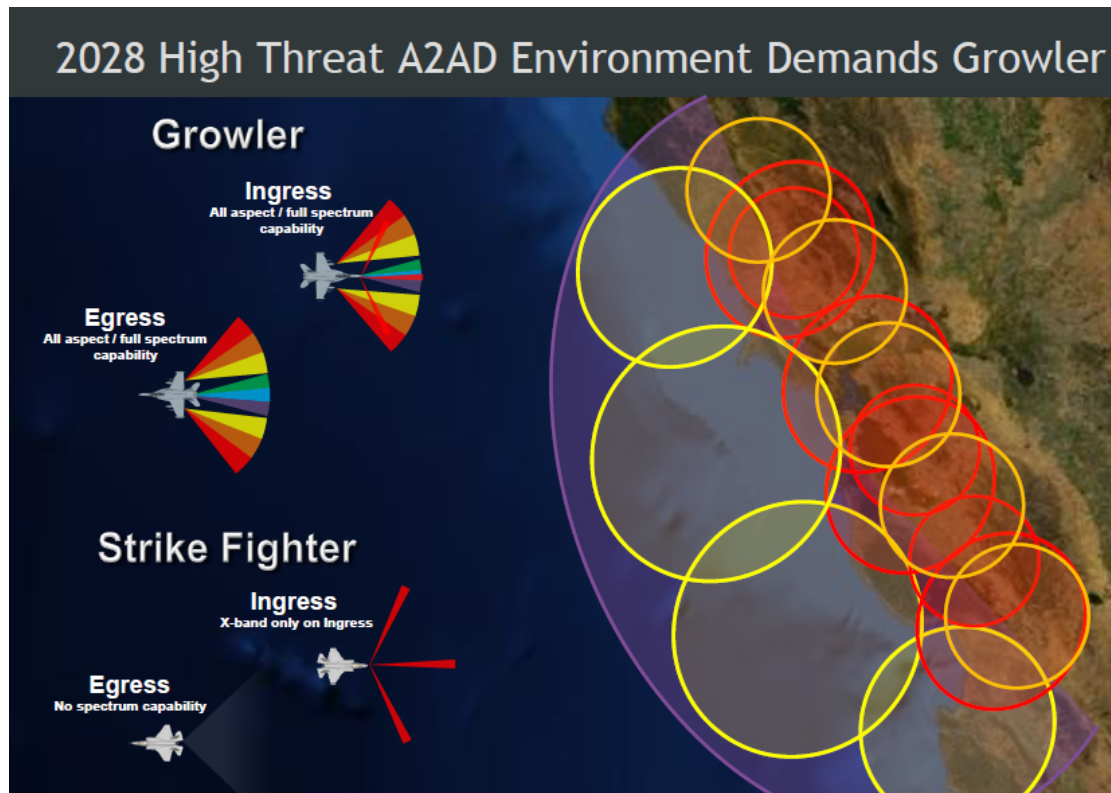
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## ***The limits of stealth of the F-35***

The link for the article by Dr Igor Sutyagin of the RUSI on Russian counter stealth radar can be found here,

<https://rusi.org/publication/rusi-defence-systems/limits-stealth>

Also here is an excerpt from the Boeing brief presented to the US Navy League in April of 2014.



This highlights that the stealth of the F-35 is limited to the X and Ku Bands in the forward aspect only.

This confirms the assessments made by independent experts such as Air Power Australia. An example of such analysis is shown here,

<http://www.ausairpower.net/APA-NOTAM-140909-1.html>

All of these sources working independently show how limited the stealth capabilities of the F-35 are.

## ***Russian Counter stealth radars.***

Details on the Russian A100 AWACS radar can be found in these links,

[http://vpk.name/news/124380\\_minoboronyi\\_rf\\_samoletlokator\\_a100\\_premier\\_ishpyitayut\\_v\\_2015\\_godu.html](http://vpk.name/news/124380_minoboronyi_rf_samoletlokator_a100_premier_ishpyitayut_v_2015_godu.html)

[http://vpk.name/news/124467\\_sekretyi\\_premera\\_na\\_chno\\_sposoben\\_novyii\\_samoletshpion.html](http://vpk.name/news/124467_sekretyi_premera_na_chno_sposoben_novyii_samoletshpion.html)

The Raw articles are in Russian. Google translate will ready translate this into English and the highlights where contained in the original submission. Suffice to say Russian counter stealth radars are no longer proposals. They are being tested.

Another citation can be found here,

<http://aviationweek.com/technology/new-radars-irst-strengthen-stealth-detection-claims>

Bill Sweetman March 16 2015.

## ***Data Linking between Russian Aircraft***

The link outlining the capabilities of the TKS-2M Intra Flight Data link can be found here,

[http://www.jamestown.org/programs/edm/single/?tx\\_ttnews\[tt\\_news\]=44475&cHash=7153e19dcc766739c00c94a138b5c8a6#.VsXCUuYedVY](http://www.jamestown.org/programs/edm/single/?tx_ttnews[tt_news]=44475&cHash=7153e19dcc766739c00c94a138b5c8a6#.VsXCUuYedVY)

This quote is particular relevant,

" The advanced TKS-2M communication and control system on board the Su-34 allows pilots to supply targeting coordinates to each other, bypassing ground-based command centers ([TASS](#), October 8). Changes in the operational situation are transmitted to other aircraft and to the command posts online, permitting prompt retargeting of aircraft to newly detected targets. The TKS-2M is "fully automated and reliably protected against jamming" "

This is the same capability that is supposed to be ready on the F-35A by Initial Operational capability by 2017. This capability (the ability to communicate with other aircraft and pass on targeting information) is being employed by a potential adversary now.

## ***Developments in the VSim***

One of the corner stones of the original submission was the RAAF reliance on the VSim in the selection of the F-35A for Australia. The following was stated by then Minister of Defence Stephen Smith on the 12th of March 2012,

"Detailed modelling, analysis and participation in high fidelity simulator exercise have demonstrated that the F-35 can defeat all realistic current and future threats that Australia is likely to face"

This refers to the VSim.

These are excerpts from the latest Pentagon DOT&E report of 2015 into the F-35

" Due to inadequate leadership and management on the part of both the Program Office and the contractor, the program has failed to develop and deliver a Verification Simulation (VSim) for use by either the developmental test team or the JSF Operational Test Team (JOTT), as has been planned for the past eight years and is required in the approved TEMP."

and

" The Program Office's sudden decision in August 2015 to move the VSim to a Naval Air Systems Command (NAVAIR)-proposed, government-led Joint Simulation Environment (JSE), will not result in a simulation with the required capabilities and fidelity in time for F-35 IOT&E. Without a high-fidelity simulation, the F-35 IOT&E will not be able to test the F-35's full capabilities against the full range of required threats and scenarios."

These two quotes state very clearly that the VSim program has not been validated. If this was the case why would the RAAF state publicly they have used this program as a tool to justify the selection of the F-35? It begs the question what was the actual reason the F-35 was selected by the RAAF?